

AMENDMENTS TO THE DRAWINGS

Attached hereto is a replacement sheet of drawings for Figures 27 and 28. In order to overcome the objection of the Examiner, Figures 27 and 28 have been labeled with the legend "Prior Art."

REMARKS

Claims 1-30 are pending in the present application. Claims 8-11 and 21-24 have been withdrawn, although Applicants reserve the right to present such claims at a later time in a divisional application. Claims 25-30 have been added. Claims 1, 12, 13, and 14 are independent.

Election/Restriction

The Office Action states that the election has been treated as an election without traverse. To the contrary, Applicants maintain traversal of the election. Applicants submit that generic claims 1 and 12-14 are present. Pursuant to M.P.E.P. §809.02(c)(B), if generic claims are allowed, Applicants request that species II, III, and IV be examined as well.

Drawings

The drawings have been objected to because Figures 27 and 28 have not been designated by a legend such as Prior Art. Accordingly, Applicants have labeled Figures 27 and 28 with the legend "Prior Art." Applicants request that the objection be reconsidered and withdrawn.

Claim Rejection – 35 U.S.C. § 103

Claims 1-7 and 12-20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Application Publication 2003/0005214 (Chan) in view of U.S. Patent 6,335,554 (Yoshikawa). Applicants traverse this rejection.

Claims 1 and 12-14 are directed to embodiments including a semiconductor memory device having a nonvolatile memory section and a volatile memory section, wherein the nonvolatile memory section includes a nonvolatile memory cell having a single gate electrode formed on a semiconductor layer via a gate insulating film, a channel region disposed under the gate electrode, a diffusion regions disposed on both sides of the channel region and having a conductive type opposite to that of the channel region, and memory functional units formed on both sides of the gate electrode and having a function for retaining charges.

The Office Action relies on Chan (the '214 reference) for teaching a semiconductor memory device having a nonvolatile memory section and a volatile memory section, and including a logical operation section (claim 12), as well as a portable electronic apparatus having the semiconductor memory device (claims 13 and 14). The Office Action relies on Yoshikawa (the '554 reference) for teaching features of a nonvolatile memory.

The nonvolatile memory section of the present invention is of a simple structure. The nonvolatile memory section is without an electrode on the memory functional unit that assists in the writing and erasing operations (specification at page 29, lines 10-14). The structure of the nonvolatile memory section facilitates mixing the memory section in transistors and obtains a less expensive semiconductor memory device (specification at page 29, lines 14-17).

On the other hand, Yoshikawa discloses a nonvolatile memory in which a first gate electrode 3 is formed on a surface of a p-type semiconductor substrate 1 through a gate insulation film 2 and a pair of second gate electrodes 8, 8 are formed on upper portion of the charge trapping layer 4 (col. 4, lines 27-35; Fig. 1).

Thus, unlike the present invention, Yoshikawa's nonvolatile memory has three gate electrodes 3, 8, 8. Applicants submit that Yoshikawa fails to teach at least the claimed nonvolatile memory section that includes a nonvolatile memory cell having a "single gate electrode." Accordingly, Applicants request that the rejection be reconsidered and withdrawn.

New Claims

Claims 25-30 have been added. The new dependent claims are allowable at least for the reasons above for respective dependent claims. The new claims recite additional features of the disclosed invention.

Conclusion

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert W. Downs (Reg. No. 48,222) at the telephone number of (703) 205-8000, to conduct an interview in an effort to expedite prosecution in connection with the present application.

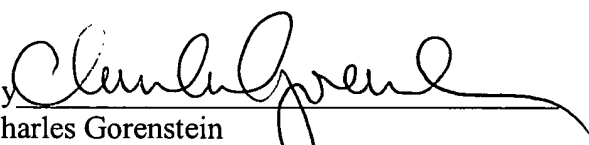
Application No. 10/826,612
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Docket No.: 0397-0479PUS1

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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Attachment: Replacement Sheet of Drawings - Figs. 27 and 28